



Work Zone Safety Bulletin

October 2001

WORK ZONE SIGNS

Background & Process

The Work Zone Safety Task Force completed its review and discussion on the use of 36" signs vs. 48" signs in work zones. The Task Force felt it was necessary to resolve this issue establishing clear guidelines for using 48" signs in work zones, thus eliminating inconsistent uses statewide. The Task Force agreed that 48" signs should be the WSDOT standard. This also fits well with our current direction to increase the visibility and conspicuity of our work zone signs by using the new fluorescent orange sign sheeting material.

The Headquarters Maintenance Office conducted a statewide survey to determine the sizes of signs currently used in work zones. Their survey indicated a mixture of the two sign sizes still being used across the state. Feedback from those surveyed, plus input from the maintenance and operations members of the Task Force identified the following issues:

- 48" signs can be more difficult to place in narrow or no shoulder locations, but it can be done.
- New portable sign stands may be needed in some cases to allow 48" sign placement.
- Many of the new NCHRP 350 approved sign stands have adjustable "all terrain" bases and legs.
- 48" signs may require more ballast than 36" signs used in windy areas.
- Current use of 36" signs may be due to long standing procedures that inadvertently were not updated or used by specialized crews that felt the smaller signs were needed due to site conditions.
- Also, the 48" standard may not have been consistently communicated across the state.

Standards

Current state and federal standards were reviewed to determine the correct standard. In this case the standards of the MUTCD apply, specifically part VI, 6F-1(2) paragraphs 4 and 5 as follows:

*Where any part of the roadway is obstructed or closed, advance warning signs are required to alert traffic well in advance of these obstructions or restrictions. These signs may be used singly or in combination. Because of their importance, they **shall have a standard size of 48 inches square** and shall be the standard diamond shape for warning signs, except as provided above (standard sizes & allowance for larger signs). Signs larger than 48 inches square may be used for additional emphasis of the temporary traffic control zone.*

Where speeds and volumes are moderately low, a minimum size of 36 inches square may be used for advance warning signs, if they have a minimum letter size of 5 inches.

Use of 36" signs would have to meet the "low speed and volume" criteria stated in paragraph 5 of the MUTCD. Although not specifically indicated, low speed is generally 40 mph or less. Low volume is a relative term, but for application to state routes 2000 ADT could be considered the upper limit. The "Millennium Edition" of the MUTCD (MUTCD 2000) maintains the same standard as the current MUTCD and references the 48" signs as a **standard** condition, which is the new terminology equivalent of the *shall* condition. The Work Zone Traffic Control Guidelines Book, M54-44 also refers to "standard" as being 48" x 48" signs".

Implementation

Work crews need to be aware of this standard and action should be initiated to replace existing 36" (or smaller) signs with 48" signs as needed. Even though the use of 48" signs have been the MUTCD standard for some time (since 1978) a reasonable timeframe to determine the need for new signs and reach full implementation is needed as follows:

- Determine the number and type of signs that need to be replaced with 48" signs
- Determine any additional equipment needed to accommodate the new 48" signs; NCHRP 350 compliant sign stands, shop or work vehicle storage & transporting equipment, additional sand bag ballast, etc.
- New signs should be fabricated with fluorescent orange sheeting
- Full implementation should be accomplished by the end of the current biennium
- Deviations may be allowed on a case by case basis to use 36" signs instead of 48" Signs based on actual conflicts that are justified and documented. Deviations will not be allowed for convenience or continuation of existing procedures.

This requirement applies to all work zones, including construction projects, utility work, survey crews, developers and others. We realize construction projects are generally covered by specifications and plans. Other work zones may require further oversight to ensure compliance with this requirement.

Reaching compliance with the 48" sign standard will require additional effort as the larger signs are integrated into our already established procedures. Compliance is required, but we also need to recognize the benefits gained in reduced liability risk and improved safety.

Contact Frank Newboles, State Work Zone and Safety Manager, by e-mail or at (360) 705-7392 for any questions.



Washington State
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